ABSTRACT OF THE DISCLOSURE

A high concentration central receiver system and method provides improved reflectors and a unique heat removal system. The central receiver has a plurality of interconnected reflectors coupled to a tower structure at a predetermined height above ground for reflecting solar radiation. A plurality of concentrators are disposed between the reflectors and the ground such that the concentrators receive reflective solar radiation from the reflectors. The central receiver system further includes a heat removal system for removing heat from the reflectors and an area immediately adjacent the concentrators. Each reflector includes a mirror, a facet, and an adhesive compound. The adhesive compound is disposed between the mirror and the facet such that the mirror is fixed to the facet under a compressive stress.